12 Lecture - CS302

Important Mcqs

- 1. Which of the following is a primary application of a comparator?
 - a. Digital signal processing
 - b. Analog signal processing
 - c. Audio signal amplification
 - d. None of the above

Answer: a

- 2. Which of the following is not a type of comparator?
 - a. Voltage comparator
 - b. Current comparator
 - c. Phase comparator
 - d. Time comparator

Answer: c

- 3. Which of the following is true about an ideal comparator?
 - a. It has infinite gain
 - b. It has zero offset voltage
 - c. It has infinite bandwidth
 - d. All of the above

Answer: d

- 4. Which of the following is a common type of output for a comparator?
 - a. Pulse width modulated signal
 - b. Analog signal
 - c. Digital signal
 - d. Sine wave

Answer: c

- 5. Which of the following is not a factor to consider when selecting a comparator?
 - a. Power consumption
 - b. Supply voltage
 - c. Input offset voltage
 - d. Operating temperature

Answer: d

- 6. What is the function of a hysteresis circuit in a comparator?
 - a. To reduce noise
 - b. To provide a fixed reference voltage

- c. To increase the gain
- d. To amplify the output signal

Answer: a

- 7. Which of the following is not a common comparator input configuration?
 - a. Inverting
 - b. Non-inverting
 - c. Differential
 - d. Single-ended

Answer: d

- 8. What is the output state of a comparator if the input voltages are equal?
 - a. High
 - b. Low
 - c. Depends on the type of comparator
 - d. Indeterminate

Answer: d

- 9. Which of the following is not a type of comparator output stage?
 - a. Open-drain
 - b. Push-pull
 - c. Source-follower
 - d. None of the above

Answer: d

- 10. Which of the following is a benefit of using a comparator in a control system?
 - a. High precision and accuracy
 - b. Low power consumption
 - c. High gain
 - d. All of the above

<mark>Answer</mark>: a